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NESTS FOR THE PIKE PERCH
(Gnezda dlya sudaka)

by

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and Fishing), 1959, Part 2, pp. 15-17.

We first used artificial nests for the spawning of the pike perch in the Dnieper. A woven ring of willows, 0.5 to 1 m in diameter, is the foundation of the nest. Bound twigs are arranged along the diameter of the ring. Tied to the foundation of the nest, using capron line, are the roots of various plants: pussy willow, willow, meadow grass, field quack grass (Agropyrum), sedge, cat tail, sunflower, and others. A rock is tied to the lower side of the ring, fastening the nest to the bottom of the reservoir in sections with a solid bottom. A capron line with a foam plastic float on the end is fastened to the upper part of the nest. The floats, floating on the surface, indicate the location of the nest.¹ The nests

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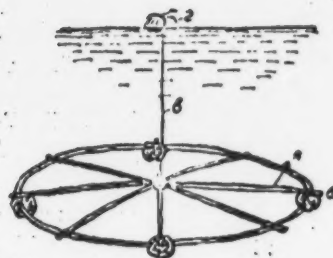


Diagram of the Situation
of a Nest in a Reservoir

are set up right before the spawning of the pike perch; otherwise, they would be occupied by the roe of a roach or a ruff.

The pike perch and other species of fish, including the sea-roach and bream, deposit roe in such nests in the Dnieper. There was even an instance when a sheat-fish deposited its roe in a nest. Nests meant for the spawning of the bream and sea-roach can be placed both horizontally on the bottom and vertically. In the latter case, a rock is not tied at the center of the nest, but to one side. The length of the line between the rock and the ring of the nest determines the distance of the nest from the bottom. With vertical placement, it is sown with roe from both sides.

Our research, as well as the research of E. M. Sebentsov and P. V. Mikheev, showed that the nests provide the possibility of obtaining the roe of valuable fish in tons. Thus, for example, in 1956, fish-breeders of the Kherson fish combine obtained 2.5 tons of the roe of the pike perch, bream, and sea-roach in artificial nests of our design in the lower reaches of

the Dnieper. Its basic mass was incubated in place, and the fingerlings released in the Dnieper and the Dneprovsko-Bugskii estuary. A small portion, a hundred million fish eggs, was shipped to the Kakhovka reservoir. In 1957, in the same place, they obtained 3.5 tons of the roe of the pike perch, bream, and sea-roach in our nests. Of this amount, more than 200 million units of pike perch roe were shipped to the Kakhovka reservoir. At present, the fish-breeders of the Kherson fish combine use artificial nests widely in the lower reaches of the Dnieper.

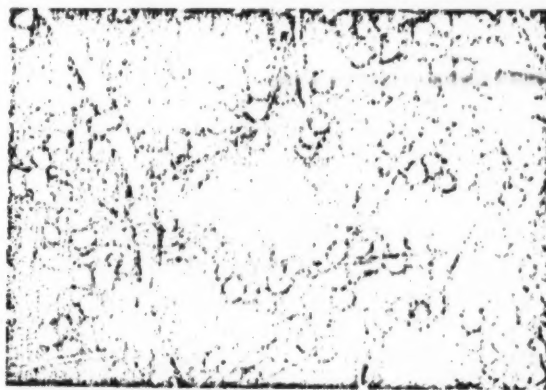
In 1951, taking into account the tests of V. Z. Trusov, we conducted the following sort of test. We manufactured a nurse-pond of fabric netting, rectangular in shape and 5 x 3 x 1.5 m in size, and placed it in the Ol'shanka river in a place where the depth reached 1-2 m, and the bottom was sandy.



Nurse-pond of Fabric Netting
for the Spawning of the Pike Perch

In this nurse-pond, we placed nests of our design and released 7 females and 10 males. 25 hours after hypophysis injection to the females, pike perch roe was observed in two

nests, and in 36 hours, in four more nests. We conducted similar tests in subsequent years on the pike perch, bream, and sea-roach. They showed that one can obtain fertilized roe from the producers of the pike perch, and other fish, placed in a nurse-pond with artificial nests. The utilization of nurse-ponds with nests for the holding over of producers of the pike perch and other fish frees the fish-breeder from the systematic checking of the condition of the sexual products in the females. They catch a fish, carry it in the hand, and press it in the abdomen for checking the condition of the sexual products. The artificial nests of our design are quite convenient even in a current and with wave action. Incubation of the roe in the nests in the surface layers of the water, with proper maintenance, provides a small waste— from 2-8%. Fish-breeders of the Kherson fish combine have



Roe Fastened to Pussy Willow
Rootlets in a Nest

already used artificial nests of our design for four years, give them a good evaluation, and recommend their use in other rivers as well.

With the use of artificial spawning-beds, the question arises about which substratum is suitable for this purpose. According to our observations, the best substratum for the sowing of roe are the roots of plants in which there are many supplementary hairlike rootlets. These are the pussy willow, willow, sedge, and other plants. During flooding of a river, the waves, washing away the shore, undermine the roots of plants, including pussy willows and willows. In such places, one can collect roots for the manufacture of artificial nests. The rhizomes of the cat-tail, sweet flag (Calamus), sedge, and other plants can be found in backwater reservoirs, creeks, and ponds, where they often form thick floats which obstruct the reservoir. These floats should be used for the manufacture of artificial spawning-beds.

The collected substratum is washed well, in order to free it of soil and silt. Washed and dried, it becomes fluffy. It is necessary to prepare it in advance and store it in a protected place.

The roots of the pussy willow and willow are often found in places where they anchor the shore, and can be utilized simultaneously by fish for the sowing of roe. They should not be collected here; on the contrary, the propagation of these plants should be organized here.

Manufactured spawning-beds can be utilized for a number of years if they are kept in a proper place. In our experience, we washed the artificial nests after the fishes' spawning,

dried them, and kept them in a shed until the following year.

¹ P. V. Mikheev, an official of VNIPRKh (All-Russian Scientific Research Institute of Pond Fisheries), recommends that the nests be joined in a chain with the help of a line and supplied with a visible buoy (Ed.).